The Patrick J. Leahy War Victims Fund

Accomplishments & Future Directions

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INTRODUCTION

In 1989, the United States Congress established the Leahy War Victims Fund (LWVF), a program conceived by Senator Patrick Leahy with the purpose of aiding war victims in developing countries. Incorporated into foreign aid legislation and administered by the U.S. Agency for International Development (USAID), the LWVF also exists today because of the strong support of many both inside and outside Congress who saw a need for a U.S. response to the rising problem of civilian war casualties. Under the umbrella of USAID's humanitarian assistance, the LWVF, like the Office of Transition Initiatives and the Food for Peace Office, supports innovative strategies in reconstructing postconflict societies. With their rapid assessment capability and immediate impact on the most vulnerable populations, these initiatives represent the Agency's best efforts to learn from each preceding crisis and ensure the right kind of help where it is most urgently needed.

In a growing list of countries that in recent decades have experienced or are still in the midst of internal conflicts, large numbers of noncombatant men, women, and children have lost arms and legs due to land mines and exploding ordinance. Even in countries where peace has been secured, huge numbers of land mines and vast unexploded ordinance pose a threat in areas where people have returned to rebuild homes and cultivate fields. In some countries where the peace process is fragile and deep mistrust among the antagonists remains, new mines are laid even as old ones are being removed. These mines claim new victims each and every day, and as long as the pace of mine removal remains glacial, the population of amputees in these countries will continue to grow.

Many of the conflicts in which land mines were used arose as a consequence of Cold War conflict. In other cases, conflicts resulted from ethnic, economic, or social divisions that political systems were incapable of resolving peacefully. To compound problems, the economic conditions of many countries with war victims were worsened by the destruction of infrastructure and productive facilities and through large-scale population displacement.

Recent events have given worldwide prominence to the problems of victims of land mines. The 1997 Nobel Peace Prize was awarded to the International Campaign to Ban Land Mines, and at the Ottawa Treaty Signing Conference and Mine Action Forum in December 1997 more than 120 nations signed a treaty to ban the use and manufacture of antipersonnel mines. For presentation at the Ottawa conference, U.S. Secretary of State Albright proposed a Demining 2010 Initiative that would commit nations and private sources to allocate $1 billion annually for mine removal, research on improved removal technology, mine awareness education, and assistance to victims. The United States currently spends $77 million a year on such activities, and U.S. expenditures are slated to rise to $120 million in fiscal year 1999. The LWVF earmark rose from $5 million a year to $7.5 million for the current fiscal year.

Range of the Need

Among civilian war victims, those in greatest peril are amputees, the psychologically disabled, and displaced children and orphans. Not only do these victims suffer from the disabilities of their immediate physical and emotional condition, they also face difficulty reintegrating into their surviving families and communities and becoming economically independent because of physical immobility or other barriers to employment. Child amputees face problems that are different from those of adults. During their years of rapid growth, children need more prosthetics, more adjustments to their prosthetics, and more therapy than adults. In addition, children have special social and psychological needs that require tailored assistance. Moreover, the collapse of public health systems has allowed polio to spread unchecked, leaving another legacy of children who need orthotic devices and therapy.

Although the LWVF originally was established to provide prosthetics and other mobility aids, it has extended its scope selectively in response to the needs of different populations of war victims. For instance, in Laos there is a great need for rapid treatment of victims who suffer general medical trauma from accidental detonation of unexploded ordinance and less of a need for treatment of mine amputee victims. Other LWVF responses include assistance to improve surgical preparation for prosthetic fitting and to strengthen the information and institutional basis for coping with the problems of the disabled on a national level.

The special needs of displaced children separated from their families and of war orphans are being addressed by a companion legislative provision for a Displaced Children and Orphans Fund (DCOF), also administered by USAID in close coordination with the LWVF. The projects of the LWVF and the DCOF can contribute to postconflict reconciliation because they demonstrate equal humanitarian concern for victims regardless of where they live or the political party to which they owe allegiance. In the Luena province of Angola, a LWVF-funded prosthetic center treats victims from both sides of

the conflict. The LWVF project in Vietnam was the first U.S. assistance provided in that country and was viewed by many as an initial step toward U.S.-Vietnam reconciliation.

Extent of the Need

The number of disabled varies substantially from country to country. In some countries the number is small both absolutely and as a percentage of the population. (In Laos, for example, there are an estimated 4,000 amputees, less than one-tenth of one percent of the population.) In countries with a large number of disabled, the disabled and their dependents may comprise an economically disadvantaged class (and may be an angry, vocal, and disruptive group) requiring special programs of public and community inclusion and assistance that strain already overtaxed service systems.

Few countries have reliable data on the characteristics or number of their disabled, which hampers the ability to properly plan resources. Loss of legs typically exceeds loss of arms. In addition, the data that are available typically show men outnumbering women by a significant margin. However, this difference may be simply a problem with reporting: It is often difficult for women to leave their home and child care responsibilities to travel to a prosthetic center for the several weeks necessary for fitting and therapy. There may also be cultural inhibitions constraining such travel. LWVF grantees know that the treatment of women poses special problems that require tailored responses, and they have taken gender considerations into account by hiring and training female technicians and care providers.

Because the disabled population tends to be young and more victims are injured every day, the services and institutional networks that provide for war victims will have to be sustained for many years into the future. Creating and strengthening these systems also provides capabilities for coping with the needs of people disabled from deformities, traffic accidents, and other non-war related causes—needs that would otherwise be neglected.

The developing countries trying to cope with these legacies typically have severely limited finances, no institutions capable of developing effective programs, and few technically and professionally trained personnel capable of manufacturing prostheses and orthoses and implementing the programs needed to reach war victims. In some of these countries transportation systems that were not well developed prior to the conflict were heavily damaged during the warfare. Services therefore must be decentralized and outreach programs must be offered to help the disabled access prosthetic services.

The Response

Most countries recognize a moral responsibility and political necessity to respond to the needs of war-related victims, especially during the postconflict reconciliation process. However, these war-ravaged countries face a complex problem. They must first meet the

emergency humanitarian needs of the disabled for prostheses and orthoses. They must upgrade their ability to provide surgical preparation for patients. They must manufacture prosthetic and orthotic components, even if only imported materials are available. They must establish fitting centers. They must develop systems to inform amputees of the availability of services and to enable the beneficiaries to have access, which often includes facilities for temporary housing and support while amputees are at the centers for fitting and therapy. They must train staff in a variety of technical, therapeutic, and managerial skills. They must establish training and services to help beneficiaries achieve economic self-reliance and social integration.

The organizations that implement and support these services typically take some time to develop. They include central and local governments, non-governmental organizations (NGOs), and advocacy organizations. NGOs tend to play a critical role, either because the local health authorities allocate more money to contagious and other disease programs or because the ministries lack technical capabilities in prosthetics. If the array of prosthetic service organizations is unevenly developed or unevenly effective, more advanced components may operate well below capacity, hindered by the relative ineffectiveness of related services. In Mozambique, for example, a study revealed that seven of the country's ten orthoprosthetic centers were operating below capacity despite unmet demand for orthopedics in their catchment areas. Poor transportation, poor information dissemination, and poor management of the temporary boarding facilities for patients were the apparent reasons for the underutilization of the orthopedic workshop capacity.

External assistance has been essential for mounting effective emergency programs and for helping create local capacities to take over and manage the service programs in the future. There is a fundamental distinction between providing emergency or immediate response and long-term, sustained support systems. The distinction is reflected in the configuration of the international response system and the roles played by different assistance agencies. The International Committee of the Red Cross (ICRC) is the principal international organization geared to rapid entry, even while conflict is still under way. ICRC has been a technological leader: It introduced the polypropylene-based prosthesis that is gradually becoming standard in these countries. ICRC normally exits a country within 2 to 4 years after the end of hostilities, when the general emergency phase of the peace process is concluded, leaving behind at least a central working facility for production of prosthesis components and sufficient trained staff to keep the facility in operation.

Given the need to rapidly develop a capability of serving many more amputees than can be reached by an ICRC facility alone, there typically has been an international NGO response as well.[1] The NGO facilities focus more and more on outreach, fitting, therapy,

[1]NGOs providing prosthetic and orthotic services include Handicap International; Vietnam Veterans of America Foundation; World Vision; POWER; Centre for International Health and Cooperation;

Vietnam Assistance to the Handicapped; Medical and Scientific Aid for Vietnam, Laos, and Cambodia; and the national Red Cross Societies of America, Finland, Japan, Korea, Norway, Sweden, and Switzerland.

and other related services, relying on a central production workshop (established in most cases by ICRC) for the standard prosthesis components. In the setting-up period the entire system usually is dependent on humanitarian grant funding for two reasons. First, government domestic revenue is very constrained in the initial postconflict years, until the economy recovers and new tax systems are put in place. Second, cost recovery fees are difficult to charge, because most of the disabled, being unable to work, are very poor. In some countries, private physicians and clinics offer prosthetic services to a small urban clientele on a fee basis.

Most humanitarian assistance programs are designed to be temporary, lasting only until the "emergency" period ends. The decision about when a particular emergency situation has ended is a judgment call made on a case-by-case basis and is influenced by a combination of factors: security conditions, presence of government and international agencies with long-run sustainability of the ICRC-assisted facility (even if sustainability means handing over oversight perspectives and mandates, and the achievement of minimal technical and managerial to another international agency or NGO with a longer-run mandate). Then the program moves into the "developmental" phase. The objective of this phase is to make the core facilities sustainable, arrange for recurrent staff upgrading, and raise the quality of prosthetic production, fitting, and therapy services. Orthoprosthetic training is a critical requirement for turnover and sustainability. The German aid agency (GTZ) is a major provider of

Two Tales from Mozambique

A land mine tore off one of Lydia Samuel's legs in 1984 when she was 24 years old. She was walking to a primary school, where she worked as a cleaner. The school and her home–and the mine–were located in Manhica district, about 43 miles from Mozambique's capital, Maputo. Her oldest daughter was then six. Lydia could no longer work as a cleaner. It was 7 years before she was fitted with her first prosthetic leg in the LWVF-supported center in Maputo. The leg enabled her to work her family farm and to support her family again. She now has three children and returns to the orthopedic center when her prosthesis needs repair or replacing.

Felisberto Elias Chauque is a seven-year old boy. He also lives in Manhica district, with his parents. Early in 1997 he stepped on a land mine as he was walking through the bush looking for cashew nuts. The blast cost him a leg. Virtually immobilized, he had to stop going to school. At the end of the 1997, he was being fitted with his first prosthetic leg at the Maputo Center. When his mobility is restored, he plans to return to school and continue his studies.

orthoprosthetic training and has helped establish 3-year training and degree-granting facilities in China, Vietnam, Tanzania, El Salvador, and Togo.

The need for a larger world response is undeniable. The commonly accepted estimate is that there are at least 300,000 mine-survivor amputees in developing countries and that mines are claiming an additional 2,000 (surviving) victims every month. Making some reasonable assumptions about the distribution between children and adults, these countries would need to produce and fit about 150,000 prosthetic limbs annually to meet the replacement needs of those already fitted and the initial limbs for the new victims. The actual need for future years is substantially higher, as a significant portion of that 300,000 has received no prosthesis or has been fitted with unsatisfactory makeshift devices. Today, the total fitting capacity in these countries is roughly 35,000 limbs per year, less than a quarter of the annual need, without even accounting for victims still waiting to be fitted with an initial (or adequate) prosthesis. The world has a long way to go before the primary objective of restoring and sustaining the mobility of mine victims will be met.

LWVF Projects: Permanent Bridges to Development Participation

As long as they remain without the mobility that protheses provide, the disabled in developing countries are economically dependent on their low-income families. Once mobile, they again become self-reliant and productive, enabled by their special service systems to become participants also in standard development programs. Thus, the projects financed by the LWVF are humanitarian in the first instance but are also permanent bridges to development participation, making them unique among the programs supported by USAID.

Assistance tailored to meet the problems of war victims should be recognized by Congress and USAID as one of the centerpieces of the array of programs USAID sponsors to address so-called complex humanitarian emergencies and the postconflict peace and rehabilitation processes that follow these emergencies. In recent years, these programs have claimed an increasing share of U.S. foreign aid dollars, as the overall problem of coping with these emergencies and their human and economic consequences has moved to center stage as a strategic objective for USAID. LWVF assistance to the disabled will be an important piece of U.S. participation in the proposed Demining 2010 Initiative.

While the War Victims Fund, along with the Displaced Children and Orphans Fund, has involved relatively modest funds compared with the total appropriations devoted to complex humanitarian emergencies and postconflict rehabilitation, the two funds have commendable accomplishments to their credit, have developed models of operation and international coordination, and have accumulated knowledge and experience that could serve as the basis for a larger U.S. response to the problems of war victims if Congress

were to decide to expand these efforts. The LWVF's accomplishments and some considerations of future options are the subject of the rest of this review.

ACCOMPLISHMENTS

As noted above, the settings in which LWVF projects operate are among the most daunting faced by international assistance agencies. All of the local factors that affect the ease or difficulty of designing and implementing aid-assisted projects are likely to be very unfavorable during and after internal conflict: transportation and communications infrastructure, logistical systems, local technical and managerial capabilities, personal security, access to the putative beneficiaries, information bases for planning and monitoring, coordination among relevant government departments, delineation of responsibilities among central and local levels of government, and probity of responsible officials. In Angola, for example, a LWVF prosthetics center has begun operating in Luena, a provincial capital surrounded by mines and, until recently, accessible only by air services operated by international agencies and NGOs. In Mozambique, interregional transport remains very difficult. In both countries, neither government departments nor local NGOs have reached a point where turning facilities over to local management is advisable. In Armenia, corruption was a major obstacle to the sustainability of the prosthetics program.

Despite such difficulties, LWVF projects have established and operated facilities that have benefited significant numbers of the disabled:

- Some of the projects have made substantial headway toward local technical and managerial sustainability.
- Some have strengthened local capabilities for in-service training processes that over time will be able to raise the quality of prosthetic and orthotic and ancillary services to international standards.
- Most projects have contributed to strengthening the country network of organizations and projects serving the disabled.

To date, the LWVF has allocated more then $45 million for projects in 14 countries. The

projects in four countries including Armenia, El Salvador, Lebanon, and Mali have been completed and closed out. A small project was funded in Afghanistan in FY90; a major new LWVF initiative is planned for that country for FY98. The nine currently operating projects include Cambodia, Laos, Vietnam, and Sri Lanka in Asia and Angola, Ethiopia, Liberia, Mozambique, and Uganda in Africa. The LWVF typically supports one project per country; exceptions are Laos where two projects are under way and Vietnam where six projects are under way.

The current projects are implemented through grants to 14 organizations (American, foreign, and international), including the Vietnam Veterans of America Foundation (VVAF), World Rehabilitation Fund, ICRC, Save the Children Federation/US, World Education, World Learning, World Vision Relief and Development (WVRD), UNICEF, Prosthetic and Orthotic Worldwide Education and Relief (POWER) (UK), Friend-in-Need Society (FINS) (Sri Lanka), Health Volunteers Overseas, Vietnam Assistance to the Handicapped, and the Prosthetics Outreach Foundation (POF). A special grant of $100,000 was given to the Lao UXO (Unexploded Ordinance) Trust Fund, administered by the United Nations Development Programme. Unlike in other countries, the majority of casualties in Laos are caused by unexploded ordinance rather than land mines. In all cases, the grantee organization works in partnership with the host government (usually the ministries responsible for health and social welfare), with local NGOs where such are available and capable of participating in project implementation, and with other international agencies also working with war victims and the disabled.

The table that follows gives a picture of the size of the problem in seven of the nine countries where LWVF funds projects. As the table indicates, most estimates of the number of amputees and new mine (and other source) victims per year are either rough or unavailable. The data nevertheless illustrate the wide differences among the countries. The numbers showing each country's current prosthetic capacity (the numbers of amputees served in one year) are important for putting into perspective the primary objective of victim assistance programs: providing prostheses for all who have lost limbs. In Mozambique, the number of amputees the prosthetic service system can provide for is larger than the number of new victims each year; in other words, the system is making progress in reducing the number of unserved victims. In Angola, the number of new victims exceeds the capacity of the system to provide service; in effect, the unserved disabled population is rising, and the prosthetics system is losing ground and needs to expand its capacity.

The character and objectives of LWVF projects vary by country, depending on the nature and extent of the problem and on the initial level of institutional strength and professional capacities:

- In Lebanon, where the number of disabled was small and the institutional capabilities were relatively advanced, the LWVF

project focused on raising the efficiency and sustainability of the support network. It addressed functions such as training, management, beneficiary tracking, and statistics.

- In Angola, where the number of still unserved disabled is very high (probably in the tens of thousands) and the institutional framework is very weak, the LWVF project focuses on establishing basic and relatively free-standing prosthetic production and on new outreach services for a large area that has been without support services.

- In Laos and Vietnam, LWVF projects provide advanced training for orthopedic surgeons to improve the preparation of amputee stumps for receiving prosthetic devices.

- In El Salvador, the project went beyond physical rehabilitation to help strengthen job placement services for the physically impaired.

- An innovative project in Vietnam advocates for the special needs of the disabled, especially for the adoption of barrier-free access based on U.S. experience.

- Another LWVF project carries institutional strengthening to the point of establishing linkages and exchange programs between Vietnamese and American tertiary education institutions.

- In Ethiopia, LWVF supports a pan-African prosthetic and orthotic training center run by ICRC.

Particularly noteworthy is the LWVF's support of efforts to advance the state of the art in prosthetic technology. The LWVF has permitted CAD-CAM technology to be thoroughly tested in Vietnam. While some organizations use technology considered standard in the industrial world, others favor a lower-cost device that uses local materials. ICRC has searched for a compromise that could include the quality socket fit; alignment changes to improve function; lightweight, inexpensive, locally produced components; and minimum fitting and fabrication time. Polypropylene technology appears to be satisfying these requirements. Observations made by qualified technical experts at multiple sites indicate that amputees are receiving appropriate prosthetic services with the ICRC approach. Amputees are being managed by trained prosthetists, and the ICRC approach has helped thousands of amputees in need of immediate prosthetic services. A more definitive prosthesis may be required in the future, but for now the tremendous backlog of amputees needing limbs is being reduced. Designs for knee joints, feet, and other components continue to be developed. Adaptations to local conditions and usage patterns are required. The weakest component (the component that wears out most quickly and must

be replaced) is the foot. This problem is being addressed by multiple agencies providing prosthetic services in the developing world.

Number of Amputees and Service Capacity for Selected Countries

Country	Cooperating Agency	Number of Amputees	Number of New Amputees Per Year[1]	Current Capacity: Number of Amputees Served Per Year
Angola	VVAF	70,000[2]	4,000-6,000[3]	3,460
Cambodia	VVAF	20,000	N/A	7,502
Laos	WVRD	3,988	112	300+
Liberia	UNICEF	13,000[4]	N/A	1,500
Mozambique	POWER	10,000-12,000[5]	250-500	1,000
Sri Lanka	FINS	10,000	2,500	1,500
Vietnam	POF	200,000	N/A	1,200
	WVRD	1,575,000	N/A	4-6,000

[1] For further information on this question, see, e.g., Shawn Roberts and Jody Williams, *After the Guns Fall Silent: The Enduring Legacy of Landmines* (Washington, D.C: Vietnam Veterans of America Foundation, 1995): General discussion of increase in casualties after refugee populations begin to return to countries after the end of war, p. 11; discussion of extra risks land mines posed to returning Afghan refugees after the end of the war in 1992-1993, p. 91; discussion of Cambodian households in which many families must be involved to some degree even in heavily mined areas despite knowledge of the risks, p. 148; discussion of situation in Mozambique where, as local economies are starting to recover after the war, mined roads, footpaths, tracks, and fields are increasingly being used despite the known risks, p. 212; discussion of Somalia where, at the end of the war in February 1991, land mine injuries increased as refugees began to return, p. 275.

[2] This estimation is corroborated by virtually all available sources. See also Republic of Angola, *Community Rehabilitation and National Reconciliation Programme*, Round Table Conference of Donors, 1995, p. 5; John Alden and Mussa M. Calu, *An Assessment of Prosthetic Needs and Opportunities in Angola*, Health Technical Services Project of TvT Associates, Inc., May 1995, p. 1; and United Nations/Humanitarian Assistance Coordination Unit/Angola, *Study of the Vulnerable Groups in Angola within the Perspective of the Peace Process*, First Draft, December 1994, pp. 10-11.

[3] United Nations/Humanitarian Assistance Coordination Unit/Angola, op. cit., p. 41.

Using the Liberian population of 2.2 million in 1990, an estimated ratio of 0.5% plus 15% (due to the war) results in 13,000 amputees.

[5] POWER, *Development Plan Recommendations for Orthoprosthetics in Mozambique* (Maputo: POWER, September 1996). This is a middle estimate based on an extensive review of all available sources of data in Mozambique.

	POWER	60,000-100,000[6] 200,000	N/A	11,000[7] 13,000[8]

[6] Ministry of Labor, Invalids and Social Affairs, *Report of Fundamental Investigations: Current Situation of Supplying Orthopedic Devices: Ability of Centers* (Hanoi: MOLISA, October 1994).

[7] Anonymous (undated) table entitled Tong So Cac Loai Chan Gai San Xuat Trong 5 Nam-Tu 1990 Den 1994, showing 38,187 below knee limbs and 16,557 above knee limbs (total 54,744) fitted in the period, or an average of 11,000 per year excluding upper limbs.

[8] Anonymous (undated) table entitled Bao Cao So Luong Thuong Binh va Nguot Tan Tat Nam 1996, showing 3,711 above knee limbs, 6,375 below knee limbs, and 2,879 upper limbs fitted in 1996 is about 1,000 lower in this year than the average of the five years in the preceding source.

FUTURE DIRECTIONS

Through the eight years of operation of the Leahy War Victims Fund, drawing complementary added resources from some of the Agency's country mission programs, USAID has become a leader among international organizations that have developed special capabilities and dedicated resources addressing the problems of persons disabled from war and land mines. While providing prosthetics and other mobility aids to amputees, the Agency and its grantees have developed experience in several related dimensions, including needs assessment, technology improvement, service system planning and development, in-service and academic technical and professional orthopedic training, facility creation and development, outreach, evaluation, and advocacy. This experience can inform an analysis and an exploration of future directions for the LWVF.

In Laos, Life Hangs on the Costs of Transportation and Treatment

During new year celebrations of the Hmong people, three 9-year-old boys in Kham district began to toss a metal ball they found in a field near their house. The ball was actually a bomblet, one of many such objects packed in cluster bombs dropped during U.S. bombing raids in northern Laos during the Vietnam War. As the children tossed the bomblet, it exploded in mid-air, seriously injuring two of the three. With the aid of LWVF-funded NGOs, the boys were flown to hospitals for treatment. They survived, but they have serious physical and mental impairments.

An exploration of options is especially timely, coming on the heels of the secretary of state's demining initiative. *The need for special international attention to war victims is likely to persist for the foreseeable future:* A large number of disabled are not yet served by the facilities currently operating, land mines continue to kill or maim an estimated 25,000-30,000 new victims annually, and new internal conflicts are likely to break out among the many countries lacking political systems adequate for compromise and nonviolent conflict resolution. Such attention should command high priority among the programs pursued under the Demining 2010 Initiative.

What are the options for USAID and for the War Victims Fund as a central component in this context? For FY98, Congress has raised the LWVF earmark from $5 million to $7.5 million. How should these resources be used?

This review obviously cannot answer in advance questions that may arise regarding allocation decisions between emergency needs in countries that may erupt into conflict and expanded coverage of still unserved victims of earlier resolved conflicts. Political considerations, a history of previous close relations, or other factors will determine on a case-by-case basis the extent to which the United States or some other donor might be best suited as a major source of assistance to specific countries. Instead, we review here some considerations that should influence future allocation choices and setting LWVF objectives.

Country Coverage

There is a strong humanitarian and political argument for the United States to expand its capabilities, even if only in a small way – as might be the case anyway if significant resources are forthcoming from other sources or if resource or management constraints made a larger effort not feasible – to any country with a disabled war victim problem that exceeds its capacities to meet and that desires input from the United States. The relative size of the problem – the number of amputees whose prosthetic needs are unmet – should also be a major consideration. The largest allocations of LWVF funds generally have been to the countries with the largest war victims problem. Of course, relative size of the problem will not be an automatic determinant of relative need for assistance from the United States: A country may emerge from conflict with substantial technical, professional, and institutional resources intact or may be receiving substantial assistance for war victims from other donors. Considerations of security, government interest, and the presence of minimal capacities also enter into the project decision process.

Once LWVF grantees have developed effective local relationships and country knowledge, and the system for aiding the victims has made some progress, there is a good argument for the LWVF continuing in the same country with follow-on projects that can leverage on the early accomplishments to strengthen weak links and help bring the system to complete coverage and on track to local sustainability (Lebanon is an example of this approach). More importantly, underserved regions of countries where the program is already operating may hold much larger pools of unmet prosthetic demand (as in Angola) compared with the needs in small-population countries as a whole. How to define sustainability, as a criterion for an "exit strategy," is a separate question to which we turn next.

Sustainability

We emphasized earlier the distinction between an emergency mode of prostheses production and an initial fitting for the disabled, and the long-term sustainability of the facilities and programs necessary for lifelong prosthetic replacement services and for serving the daily flow of new victims, for years to come, in countries with vast numbers of land mines or fields of unexploded ordinance. Some international prosthesis providers, preeminently ICRC, have mandates and operational modes geared to rapid response during emergency periods and for relatively short post-conflict periods. Other agencies, like USAID (and the Swedish and German aid programs), while they support rapid-response efforts, also can address the long-term, local institutionalization of war victim assistance programs.

To be sustainable, local capabilities must reach a threshold in three aspects: technical, institutional/managerial, and financial. These thresholds cannot be sharply defined or measured. Local managerial responsibility, for example, may develop gradually over increasing numbers of components of a complex program, while foreign experts phase down in numbers and shift from direct management to advisory roles. It is difficult to determine the level of quality of production or service at which a specific facility should be considered self-reliant, i.e., able to manage its future upgrading itself (even if such upgrading may still need some external training or financial supplementation; self-reliance should not be defined as autarchy). Nevertheless, as the independent evaluations of LWVF projects demonstrate, professional judgment can readily size up the state of local capacities and identify whether they are sustainable. It is also possible to identify common-sense indicators of sustainability, for instance, whether a given level of component production or service delivery maintained as the operational responsibilities of the external agency are phasing down, or whether quality control is exercised and quality of product or service is maintained. Sustainability of an individual facility may turn out to be undesirable if it remains underutilized, as happened with a center in Steung Treng province in Cambodia. The center was eventually closed.

Sustainability of the results of aid projects is usually thought of as applying to the specific organizations or functions addressed by the project. However, looking beyond the individual projects addressing one or another component of the needs of the war victims, it is clear that for the disabled population as a whole, especially where the number of disabled persons is very large or the country is very poor, sustainability should properly be defined as the continuity of the set of services needed to reach virtually the *entire* disabled community. Stated another way, the commitment and policy of the recipient government to meet (at least) the mobility needs of its war victims should not be considered met if only a portion of the victims is served, even if services have achieved full sustainability. We will return to this point later when we offer some thoughts for the future of the War Victims Fund.

LWVF project experience shows that progress toward sustainability is achievable despite the often-daunting country conditions. Technical sustainability (of individual project-assisted facilities and functions) is generally reached first, institutional and managerial sustainability second, and financial sustainability (a distant) third. Technical training, largely local in-service, has been emphasized in most of the LWVF (and other donor) projects. Local management has been strong in some cases at initiation (Lebanon) or has been developed in a reasonably short period of time (Vietnam). In other countries (Angola), the early stage of basic facility creation cannot be started without direct external management and very close technical supervision. Armenia is a case where the primary objective was reached—there was no unmet demand for prostheses—but where poor quality of service, corruption, and other problems threaten long-run sustainability.

In most of the countries, financial sustainability remains problematic (a situation, incidentally, not unique to programs for the disabled). Postconflict government budgets are constrained because of weak revenue mobilization and the need to adhere to tight fiscal policies eschewing deficit financing (typically under the framework of IMF-supported stabilization programs). Ministries of health favor activities such as immunization or infectious disease control that promise large reductions in mortality and morbidity at low per capita costs rather than the more expensive, long-term, individualized treatment required for providing mobility and rehabilitation for disabled persons. Public health capabilities also have a longer history of financing and of strong institutional and research support from the international aid system. Furthermore, the disabled usually cannot pay more than token amounts toward the cost of the services they receive from the LWVF and other donor projects, and therefore are normally not charged a fee.

Nonetheless, the financial outlook for many of the facilities should not be as dependent on external grants for some indefinite future as these considerations suggest. After the beneficiaries have become economically self-reliant, it should be politically feasible and appropriate for fees to be charged for at least some of the costs of subsequent prosthesis repair or replacement, especially if the curative facilities of the public health system have instituted cost-recovery policies for the general public (many of whose health problems may also have derived from, or been exacerbated by, conditions created by the conflict). The argument has also been made that (adult) beneficiaries who make the most use of their prosthetic or mobility devices are likely to be motivated to pay a fee to ensure their continued mobility; in contrast, beneficiaries who do not often wear their devices, or who do not need mobility for earning income, may be deterred from seeking replacement of a prosthesis that costs the society something to provide but is no longer enabling the beneficiary to resume socially productive activity. In some countries, orthopedic production facilities that have achieved high-quality standards might cover a portion of their costs through profit-earning sales to private providers or through exports to countries lacking similar capacities.

Noncombatant war victims also create a strong moral appeal for bilateral support among some donors. The worldwide movement against land mines is creating a framework in which mine victims figure prominently as deserving sympathy and assistance. The movement's receipt of the Nobel Peace Prize, and the international near-consensus on the treaty banning land mines, have focused world attention on amputee victims. The most dramatic illustration of the financial implications of this focus has been the flood of contributions to the foundation set up in the memory of Princess Diana to support land mine victims, one of the causes she advocated. The LWVF's NGO in Mozambique is exploring how to obtain endowment funds (from the Princess Diana Foundation, among others) to provide permanent (partial or complete) financial sustainability to a prosthetic facility. If this innovative effort succeeds, it could serve as a model for other countries.

Evaluation of aid effectiveness has demonstrated the importance for sustainability of a sense of ownership on the part of the authorities involved in the facilities or programs and policies being assisted. Where an activity or implementing organization is perceived by the local counterparts and participants (public or private) as the creature of foreign experts or external agencies, sustainability is frequently not achieved. The project may wither or be closed down after the aid support is concluded. Aid agencies often face the problem that the local authorities, convinced of a project's usefulness or anxious to exercise control for political or other reasons, insist on taking ownership, especially managerial, before the external partner organization believes that the minimum capacities necessary for effective local management are actually in place. While a transfer to local ownership is essential for sustainability, and is recognized as a critical target for most aid projects, premature managerial transfer may well be detrimental to technical sustainability and to the maintenance of a satisfactory level of project performance. In at least one country (Mozambique), transfer of management from ICRC to the ministry resulted in a decline in the output of the central prosthetic production workshop, a problem for which a mutually acceptable solution is being sought.

Promotion of Technical Advance

The prosthetic needs of the disabled in developing countries cannot be met simply by providing the same devices used in developed countries. The disabled in most of the countries where the LWVF has had programs are rural dwellers, farmers (or children of farm families) too poor to be able to shift from labor-intensive to machine-based cultivation methods. Thus, it is necessary to adapt the design and material composition of prostheses to make them cheaper, more suitable to local working and cultural conditions, and more durable to resist deterioration from exposure to the environments in which they are used. The initial assumption of some of the programs that it was more "appropriate" to use local materials like leather and wood in the interests of simplicity, sustainability, and

low cost has proven wrong; such devices were less effective, the materials disintegrated quickly, and the disabled were often dissatisfied with the crude appearance. In Cambodia, for example, the LWVF grantee found that the artificial legs had to be designed to allow the beneficiaries to sit in the traditional squatting position, that the feet would last longer and look more normal if made with a slit to accommodate a sandal, and that the prosthetic design also had to accommodate users who work in flooded rice fields.

LWVF management also found that there were technology choices to be made between different materials and different foot designs and composition, with the foot being the component that bore the brunt of use and that had to be replaced most often. As in the Cambodia example, USAID grantees have made significant advances in the state of the art relevant to developing country conditions, with some devoting a portion of the funding to research and development. In May 1995, USAID sponsored the International Society for Prosthetic/Orthotic to conduct a Consensus Conference on Appropriate Prosthetics Technology for Developing Countries. That report and its recommendations have been given to all agencies providing prosthetic services in the developing world, including the United Nations and World Health Organization (WHO). The LWVF is planning an important initiative to review the state of the art on prosthetic foot technology and to develop a program of accelerated research. The LWVF should continue to make these kinds of contributions, because they promote international networking and research and development work as a foundation to increasing the worldwide effectiveness of the international community's response to the problems of war victims.

Review of Legislation Helps Disabled in Mozambique

A recent exercise by a former LWVF grantee working in Mozambique provides an interesting example of a fruitful legal review. Handicap International (HI) staff culled through the body of Mozambican legislation to identify provisions requiring that specified revenues be earmarked for programs benefiting the disabled. A number of significant earmarks were found that were unknown to the ministries responsible for disability programs and that were being ignored by the other ministries (defense, the national lottery) responsible for transferring these earmarked revenues to the responsible welfare ministries. HI has been advising the health and welfare ministries in expectation of a presentation to the Mozambican cabinet aimed at capturing these funds. The LWVF has also helped to develop a barrier-free access policy in Vietnam's construction code.

Needs Surveys and Comprehensive Planning

We have noted the dearth of reliable data on the most basic characteristics of the disabled in most countries. This lack of data causes problems for resource planning commensurate with the size and specific nature of the target population. In 1996, Prosthetic and Orthotic Worldwide Education

and Relief, in conjunction with the health ministry, WHO, and the LWVF-supported National Rehabilitation Center, conducted the first reliable count of amputees in Laos. This survey corrected misconceptions about the size and nature of the disability problem in Laos and provided information critical for rational system planning. Drawing on the Agency's broad experience in sector planning, evaluation, and other development management skills, USAID could add to its focus on production facilities and service delivery by providing technical assistance for (1) helping countries get a better fix on the number of disabled persons and their basic characteristics and (2) the planning of policies and programs aimed at comprehensive, phased coverage of the problems of the war disabled under developing country circumstances.

An important aspect of system planning deserving special attention is the development of an enhancing legal framework. Legislation that encourages and eases the establishment and operation of local NGOs is often absent in developing countries, especially in countries where extended internal conflict has thrown virtually the whole preexisting body of law into disrepute. In addition, there may be no legislation concerning the disabled. While the most advanced legal norms in countries like the United States may not be appropriate or may call for public expenditure that would be excessive in a low-income country, there is considerable world experience that could be distilled for the benefit of countries still in the early stages of coping with the problems of war victims.

Facility Guidelines

LWVF grantees conducting operational projects have had varying experience addressing issues of cost-effectiveness. Business-like management is sometimes viewed as less important of a goal than getting service delivery up and running. Some of the project evaluations that the LWVF commissioned point to specific management practices that could be tightened. Drawing on this experience, the LWVF could consider preparing (perhaps jointly with ICRC) general guidelines for the development of prosthetic facilities under developing country conditions that could enhance the effectiveness of future projects.

Advocacy

The LWVF has provided modest grants to local advocacy organizations in Lebanon, Mozambique, Sri Lanka, and Vietnam, and some LWVF grantees have also worked with advocacy organizations. However, the level of overall attention and effort put into advocacy under LWVF auspices thus far has been small. In some countries, strong

advocacy organizations may be important for ensuring sustainability, that is, for capturing government attention and for generating continuing public support of appropriate policies. Grantees should be alert to opportunities to work with and strengthen such organizations. Not surprisingly, mine victims themselves have a strong interest in advocacy organizations and are generally employed by LWVF-supported advocacy projects.

Advocacy organizations can play an important role in awareness programs. Effective public education in mine and UXO awareness can greatly reduce a population's exposure to further victimization. Mine awareness training is particularly important for children, for whom special games and other educational tools have been developed in many locations. In countries where there are huge numbers of mines and mine fields, hazard awareness education is probably the most cost-effective way to reduce casualties during the slow and costly process of mine removal. Mine awareness initiatives therefore deserve further LWVF support.

Economic and Social Reintegration

Restored mobility is the primary objective of most LWVF (and other donor-assisted) projects. Full rehabilitation and sustained self-reliance also require that the disabled be able to earn a living and that they be accepted and reintegrated in their societies. The conference committee report on USAID's FY98 appropriations bill recognizes the importance of supporting reintegration in its comments on the LWVF:

> The conferees note the contribution of the Leahy War Victims Fund in assisting war victims in over a dozen countries since its inception in 1989. Recently, world attention has focused increasingly on the problem of land mines, and the need for additional funds for the care and rehabilitation, *including social and economic reintegration* [emphasis added] of land mine victims. Accordingly, the conferees recommend that up to $7,500,000 be made available for such activities (Sec. 592 b.).

Many amputees are not able, or do not desire, to simply return to their former occupations. The physical demands of their former occupation (e.g., labor-intensive cultivation, construction work) may be too great. Young victims may not yet have acquired any job skills. Employers may be reluctant to hire workers reliant on prostheses. Thus, the reintegration of the disabled into economic activity requires retraining, schooling in new skills (e.g., using upper rather than lower limb skills), special placement services, and affirmative action efforts.

LWVF grantee experience with employment of the disabled has been extremely favorable;

while the up-front costs of preparing the disabled for employment are higher than comparable costs for the nondisabled, the disabled have proved to be unusually reliable and assiduous. Some of the grantees also have reported that the work ethic of their disabled employees has had the effect of boosting the performance of their nondisabled coworkers.

Five LWVF projects (in Cambodia, El Salvador, Laos, Mozambique, and Vietnam) have addressed vocational skills and reemployment services for the disabled. For USAID to make a more effective effort in this area, it would be useful to undertake a special evaluation of the experience of these projects, along with a review of developing country experience, generally, in economic rehabilitation of the disabled. Experience in the United States and other developed countries has taken this subject much further, but such lessons would have to be applied with caution. For the disabled living in urban areas, special training and hiring programs with large enterprises may be able to absorb a large fraction of the disabled who are not self-employed.

Achieving mobility is difficult enough in some countries. However, there are countries where technical and managerial sustainability is in sight, and the focus should shift to the follow-on problems of reintegration, as has been done by projects in El Salvador and Vietnam. The subject deserves further exploration by the LWVF, especially where there is potential for financial support from endowments or other sources.

The final hurdles to reintegration of the disabled may be psychosocial. At the community level, there may be disempowerment, bias against disabled persons, and social isolation. At the family and individual level, there may be serious cultural or psychological constraints to the restoration of respect, position, self-confidence, and normal interpersonal relations. Problems like these also are normally beyond the competence of agencies specializing in orthopedics and physical rehabilitation, but they are familiar to the LWVF. As noted earlier, the projects financed by USAID's Displaced Children and Orphans Fund (DCOF) are under the same management structure as the LWVF. The DCOF has supported

A Life Restored in Cambodia

Lim Sokheng lost both arms and an eye to a land mine over 10 years ago. Lim had great difficulty coping with the physical and psychological consequences of the blast. He fell into a deep depression and contemplated suicide. Like many amputees in Cambodia, he ended up at the LWVF-funded workshop operated by the Vietnam Veterans of America Foundation, near Phnom Penh. Lim was fitted with two arm prostheses and given a job on the workshop maintenance team. With tremendous personal effort, he adjusted physically and psychologically, advancing to become the supervisor of the patient dormitory. Lim has married and now has five children.

projects in Angola and Bosnia that largely addressed the psychosocial rehabilitation of children who had suffered severe emotional trauma (physical abuse, loss of parents, witnessing the killing of parents or siblings). Furthermore, there is experience in USAID of (non-LWVF) support to psychosocial rehabilitation projects (for instance, in Cambodia and Croatia). Where opportunities for linkages with such activities exist, the beneficiaries of LWVF mobility and physical therapy projects could receive additional support for their reintegration process. With expanded resources, the LWVF could make provisions for adding at least liaison functions to the assistance provided by suitable grantees. Some LWVF grantee organizations may be able to complement their physical therapy services by acquiring psychosocial rehabilitation expertise to incorporate into their projects. To the extent that USAID's general program in any postconflict country addresses community participation processes or the allocation of community-level resources, the missions should take account of the needs of these specially disadvantaged beneficiaries.

CONCLUSION

Though still absorbing a small fraction of U.S. foreign aid, Senator Leahy's War Victims Fund and its companion Displaced Children and Orphans Fund are growing. The funds play an important role in demining and postconflict rehabilitation programs, which are assuming increasing importance and visibility in U.S. foreign policy and among U.S. international programs.

The primary need of the war disabled is restored physical mobility. To achieve mobility, the disabled need orthoprosthetic devices (mainly lower limbs) or crutches and wheelchairs. The devices must be properly fitted and adapted to the demands of the local environment and usage. The prosthetic production, fitting, and servicing functions must be sustainable to provide lifetime replacement for prostheses that wear out and frequent replacements for amputee children still in their growing years. For prosthetic services to be effective, the disabled must have access to service centers and be housed and fed while spending the necessary several weeks at the centers during the fitting and therapy process. Amputees also need physical therapy.

The LWVF program has properly focused on mobility provision as its first priority. While it is appropriate under ICRC's "emergency" mandate for that agency to withdraw from a country after an initial prosthetics production facility has been established and is up and running, it is more appropriate for a development agency like USAID to focus on achieving the sustainability of these services. In short, *the first priority should be achievement of sustainable mobility*. In some cases, it may not be possible to provide effective protheses without also strengthening local surgical preparation capabilities.

Adopting the goal of sustainability requires that the LWVF turn its attention to the institutional and financial requirements for making services to the disabled permanent.

The first round of sustainability pertains to the individual facilities and services funded initially by the LWVF and in which USAID would have primary interest. But sustainability of facilities and services for the disabled supported by other sources, i.e., the sustainability of the array of war victim services, must also be achieved. In some countries, the development and sustainability of this array, which is likely to include government, NGO, and private facilities and services, could benefit significantly from technical assistance to the relevant health and social welfare authorities and professional associations. Technical assistance for conceptualizing and planning for the development of the array could be particularly helpful.

The LWVF is aware of the need for comprehensive approaches and has initiated dialogue with authorities in Cambodia, Vietnam, and elsewhere about the need for a national plan for disabled services. Still more needs to be done. There is a special need for reviews of the relevant legislative and regulatory framework and for rapid appraisal to get more reliable data on the numbers of disabled and their basic characteristics as a basis for intelligent resource planning.

Finally, with respect to sustainability, the LWVF could expand its support to local NGOs dedicated to advocacy. In addition to its own limited experience, the LWVF can draw on the wealth of experience amassed by USAID and the U.S. NGO community in assisting the creation and development of local NGOs.

Considerable progress has been made in recent years to improve the technology of prosthetics for developing country conditions. LWVF projects have contributed significantly to this progress and to the networking of the international community of prosthetics professionals. *Continuing to improve prosthetic technology should be the LWVF's second priority.*

As a third priority, the LWVF should expand its efforts in economic and social rehabilitation services for the disabled. Initially, it would be necessary to survey experience thus far in order to develop a firmer basis for programming effective activities.

While there are good reasons for the LWVF to consider launching some activity in any new postconflict situation where the country's capacities for assisting war victims is weak, at least to help launch (in cooperation with other international sources) the creation of an adequate response, countries with a relatively large number of disabled combined with weak response capabilities should claim priority attention.